



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,605	12/31/2003	Masakazu Ando	KOY-0030	8524
23413	7590	03/15/2006	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			BAKER, DAVID S	
			ART UNIT	PAPER NUMBER
			2884	

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8)✓

Office Action Summary	Application No. 10/749,605	Applicant(s) ANDO, MASAKAZU	
	Examiner David S. Baker	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 1-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06/07/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.
2. The information disclosure statement filed 06/07/2004 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Objections

3. Claims 1-15 are objected to because of the following informalities:

The term "high rigid" in claim 1 is a relative term which renders the claim indefinite. The term "high rigid" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The applicant does not define or quantify what constitutes high rigidity in the specification or claims. See MPEP § 2171-2174. The balance of claims are objected to for being dependant upon an already objected to claim. Appropriate correction is required.

4. Claims 1-15 are objected to because of the following informalities:

Regarding claims 1-15, the term "high rigid member" is used throughout the claims but it is unclear as to what defines "high rigid member". The examiner assumes the term should read "highly rigid member" or "high rigidity member" throughout the specification, abstract, and claims. Appropriate correction is required.

5. Claim 13 is objected to because of the following informalities:

Claim 13 contains the phrase "adheres to the back assembly possible recovery," and therefore contains indefinite language. The examiner has interpreted the claim to read -- adheres to the back assembly to allow for possible recovery --. Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 and 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto (US Patent #5,101,423) in view of Verbeke (US Patent #5,519,229).

Regarding claim 1, Okamoto discloses a cassette (11), comprising: a front assembly (frame 13); a back assembly (back plate 14) arranged to be opposite to the front assembly (figure 3), a radiographic imaging means being put in a space between the front assembly and the back assembly (column3 lines 37-45); a frame member (corner members 20 and straight members 30 of frame 13) formed in a frame in outline, arranged

in at least one of the front assembly and the back assembly, and a high rigidity member (flat fitting pins 27). Okamoto does not disclose a frame member having a cut-out opening or a through hole or arranging a high rigidity member in an area near to a cut-out opening or a through hole a frame member. Verbeke discloses a cassette for a photo-stimulable luminescence that comprises a cover (20) having through holes (holes 23) that allow pins (13) to enter into the hole when the cover is placed on the base plate (10) to lock the cassette shut. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the through hole and pin locking mechanism of Verbeke with the cassette frame apparatus of Okamoto and to place a high rigidity member in an area near to the through hole in order to improve the locking mechanism of Okamoto so that the cassette would not accidentally open and be exposed to light. Okamoto teaches (column 3 lines 36-59) the use of a locking mechanism that is formed of projections formed at the periphery of the back plate that fits into grooves in the frame. This is similar to what Verbeke teaches, however, by using Verbeke's locking mechanism the strength of the lock would be further improved because the locking projections/pins not only extend into the frame, but also extend through the actual frame. If Okamoto's frame is deformed, there is a chance the locking mechanism will open, but if the pins extend through the frame, the frame will have to be broken for the cover to come open. Additionally, as shown by the construction of Okamoto's frame (figure 8), it can be seen that the high rigidity members would be in an area near the through holes and understood to be obvious to place the high rigidity members in an area near the through

holes to improve the rigidity of the frame and consequently, the effectiveness of the locking mechanism.

Regarding claim 7, Okamoto and Verbeke disclose the limitations set forth in claim 1, but do not disclose expressly that the length of the high rigid member is equal to or lower than half of length of one side of the frame member. However, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to make the length of the high rigidity member as small as possible while still retaining the desired improved rigidity in the frame member. The suggestion/motivation for doing so would have been to minimize the additional weight due to the high rigidity member as well as reducing on manufacturing costs by using less material.

Regarding claim 8-11, Okamoto discloses that the cassette is made of plastic (column 1 lines 40-68, column 2 lines 1-10), the corners of the frame member are made of hard synthetic resin (column 2 lines 47-64), and the straight frame members are made of aluminum. All of which have a lower rigidity than the high rigidity member that is made of stainless steel (column 2 lines 47-66, column 4 lines 11-26).

Regarding claim 12, Okamoto teaches that the use of metal in the frame members is not advantageous because during the manufacturing of the frame the cross-section shape may be deformed or twisted during production bending (column 1 lines 21-40). Okamoto also teaches by making the cassette of plastic it is easy to produce and excellent in terms of size accuracy (column 1 lines 41-45); for example, Okamoto discloses the use of hard synthetic resin for the corner members of the cassette frame (column 4 lines 1-10). It would be obvious that by making the fitting pins out of the same material, the

cassette would still maintain a higher rigidity due to the structure that includes the fitting pins but be lighter in weight than a similar structure with fitting pins made of steel.

Regarding claim 13, Okamoto discloses that the radiographic imaging means is adhered to interior of the cassette (column 3 lines 36-45).

Regarding claims 14 and 15, Verbeke discloses that the radiographic imaging means is conventionally a stimuable phosphor plate (column 1 lines 15-44).

8. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto (US Patent #5,101,423) and Verbeke (US Patent #5,519,229), and further in view of applicant admitted prior art.

Regarding claims 2 and 3, Verbeke has disclosed lock pins arranged in the back plate that are movable into a through hole in the cover plate of a cassette (figures 1 and 2). The applicant discloses that in the field of lock pins, alternatively known as push latches, the use of lock pins that can maintain a set lock on and lock off state are well-known – as demonstrated in the art of pens (Instant Invention Application Specification Page #18). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to alter the lock pin of Verbeke to be an alternating state lock pin in order to ease the removal of the cover of the cassette. By using an alternating state lock pin, each individual lock pin could be set to a lock off state one-by-one which would make the removal process much simpler to perform if done by hand.

Regarding claim 4, Verbeke discloses that the front cover (20) and the back base plate (10) are detachable from each other when the locking pins are disengaged (figure 2).

Regarding claim 5, Okamoto discloses a concavity (gap 45) arranged in the back assembly (back plate 14) where a light shielding protrusion (rising side 34a) is put into the concavity so as to prevent light from entering the cassette (figure 4, column 3 lines 22-59).

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto (US Patent #5,101,423) and Verbeke (US Patent #5,519,229), and further in view of Maeda (US Patent #5,944,306).

Regarding claim 6, Okamoto and Verbeke disclose the limitations set forth in claim 1, but do not expressly disclose a magnetic member attracting the front assembly that is arranged in the back assembly. Maeda discloses (figure 6, column 6 lines 48-67, column 7 lines 1-28) a magnetic member (magnet 92 and metal plate 94) attracting the front assembly (upper case 82a) by magnetic force is arranged in the back assembly (lower case 82b). At the time the invention was made, it would have been obvious to use the magnetic member as disclosed by Maeda with the cassette disclosed by Okamoto and Verbeke in order to prevent the cassette from accidentally opening when the lock mechanism is in the off configuration, thus increasing the protection of the fragile stimuable phosphor.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Baker whose telephone number is 571-272-6003. The examiner can normally be reached on MTWRF 10:30-7:00.


Art Unit: 2878

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David S Baker
Examiner
Art Unit 2878

DSB


DAVID PORTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2878